Impact of Intervention on Conflict Outcomes

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Introduction

In policy-making, military intervention is often depicted as a solution to internal conflicts, while at the same time, academic research has revealed that intervention oftentimes rather prolongs and exacerbates civil wars. Our research project looks at how different types of third-party intervention (military, non-military, troops) into intrastate wars affect the outcome of the conflict (rebel or government victory, negotiated settlement, low intensity conflict). This paper briefly outlines the design, operationalization and data selection, before conducting a first regression analysis and briefly describing its results. More extensive information will be available in the final report.

Data Gathering

We use as a baseline for our analysis a publicly available dataset created by Sullivan and Karreth (Sullivan and Karreth (2014)), which we will henceforth refer to as the CIMI Dataset. Sullivan and Karreth draw from the 3.3 version of the Non-state Actors (NSA) dataset (D. E. Cunningham, Gleditsch, and Salehyan (2013)), as well as the University of Uppsala Conflict Data Program's (UCDP) Conflict Termination Dataset (Kreutz (2010)) and External Support Dataset (Hoegbladh, Pettersson, and Themner (2011)).

Dependent Variable

We follow the CIMI Dataset in disaggregating our dependent variable conflict outcome into four categories, coded from the UCDP Conflict Termination Dataset. Internal conflicts often fade out into a period of low activity with less than 25 deaths per year for at least one year (0), they end with a victory by either the rebel (1) or the opposition (3), or they terminate by some form of negotiated settlement (2).

Independent Variables

Measuring the impact of third-party military intervention on conflict outcomes, we distinguish between military, non-military and troop support, as coded by the NSA Dataset. Further key explanatory variables in determining conflict outcomes are the capacity of rebels and government relative to each other. CIMI includes both rebel military capacity relative to the government and the log of GDP per capita as a measure for government strength.

Control Variables

We borrow the Cold War dummy, the coup dummy as well as the log of conflict duration from the CIMI dataset. As suggested by Sawyer et al. (Sawyer, Cunningham, and Reed (2015)), the NSA Dataset offers as a control for the rebel incentive to fight a dummy for whether the rebel group has a legal political wing.

Data Cleaning And Merging

Considering that we draw variables from two different datasets (CIMI and NSA), we needed to clean and merge these two datasets. We first created a subset of the CIMI Dataset with the relevant variables needed for our initial statistical model. With the select command, we created the subset data frame Cleaned_CIMI_Model1. As is often the case with conflict data, we were faced with a missing values problem and deleted all observations with missing values in the dependent variable, leaving us with a data frame with observations and variables. In a second step, we cleaned the NSA Dataset for our purpose and equally created a subset of the data frame called Cleaned_NSA_Model1. We coded two dummies, external support to rebels (rebel.support.dummy) and external support to governments (gov.support.dummy), from the existent character variables. In addition, we transformed the character variables describing the type of support received by governments and rebels into categorical variables with the following factors: 1=troops, 2=military, 3=non-military. Missing data on these covariates reduced the number of observations to XXX. Lastly, we merged the cleaned datasets around the unique identifiers conflicted and dyadid. As is common in recent conflict research, CIMI and NSA datasets take conflict dyads as their unit of analysis, modeling civil wars as dyadic struggles between the government and an opposition party instead of focusing on the state-level. The merged dataset Model_1 has XXX observations and XXX variables.

Data Analysis

In the following, we conduct some basic descriptive as well as inferential statistics.

Descriptive Statistics

Figure 1 shows the frequency of the different conflict outcome types.

Conflict Outcome Types: 0: Low Acitivity 1: Rebel Victory 2: Settlement 3: Government Victory

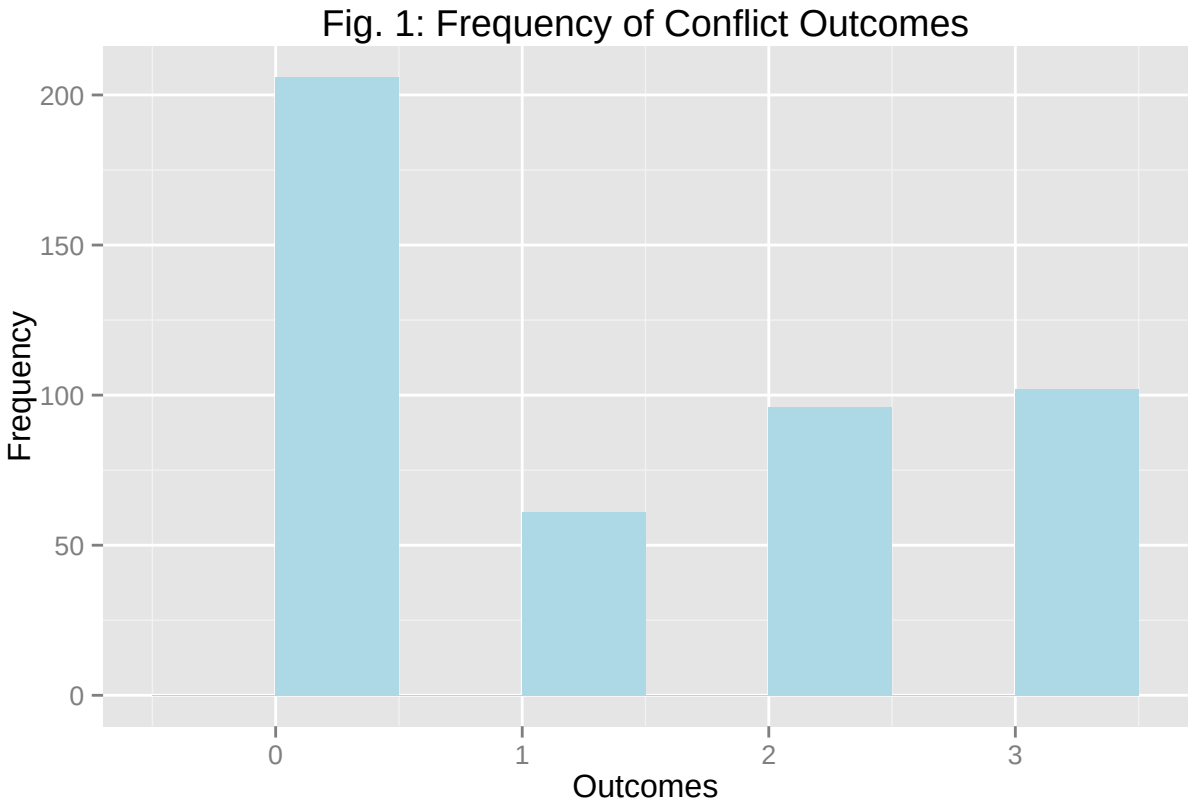


Figure 2 shows the frequency of the different types of support to a government.

Support Types:
1: Troops
2: Military
3: Non-military

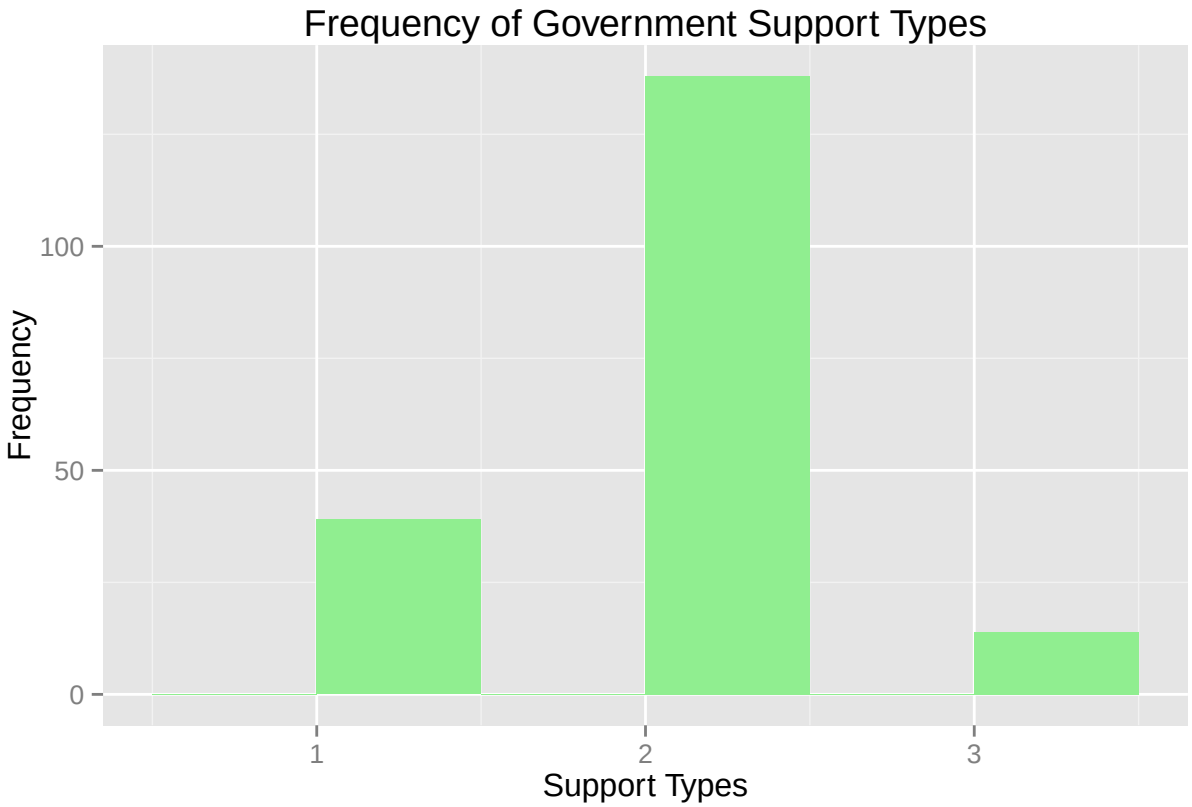
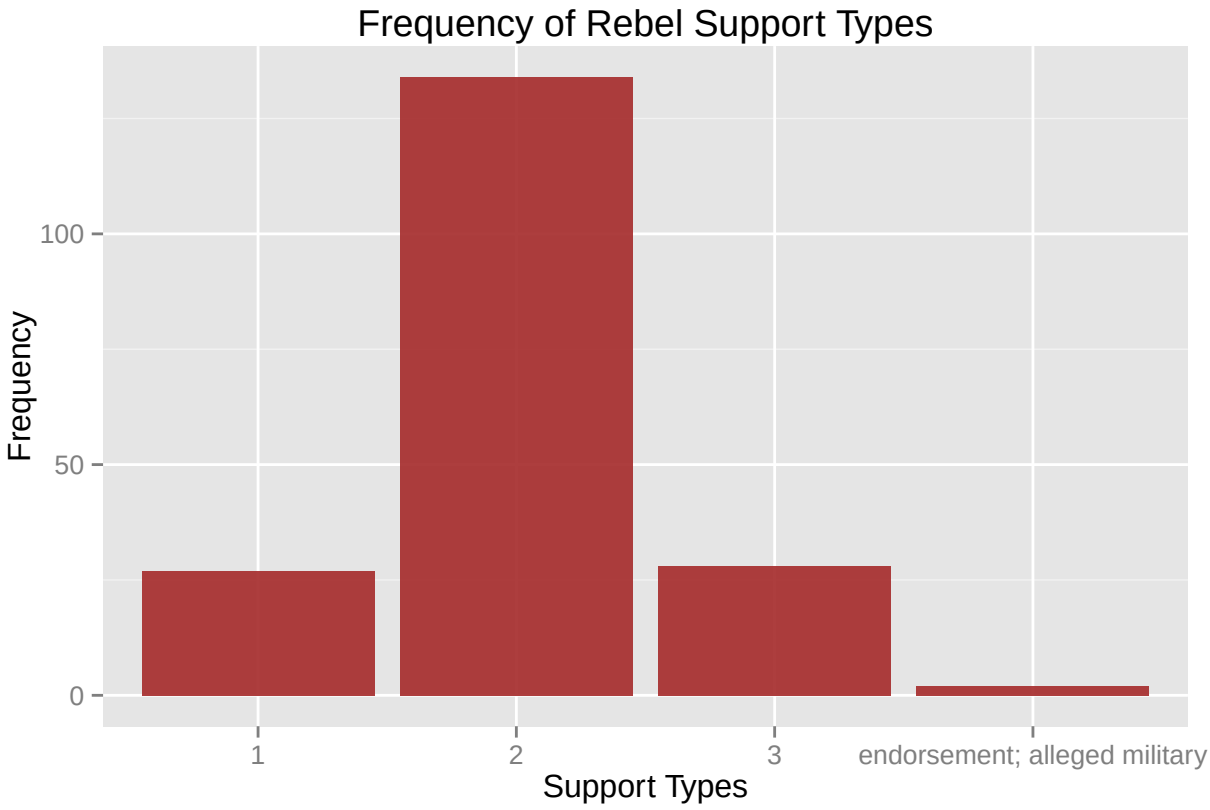


Figure 3 shows the frequency of the different types of support to a rebel group (same suppurt types as in Figure 2).



Multinomial Logistical Regression

Our baseline model estimates a multinomial logit model because our dependent variable - conflict outcome - is a categorical variable with the four outcomes government victory, rebel victory, negotiated settlement, and low intensity conflict. The results tell us how different kinds of third-party intervention affect the likelihood of a conflict having a specific outcome vs. the reference (low intensity conflict).

$$Pr(Y_i = j) = \frac{exp(X_i\beta_j)}{\sum_{j=1}^{J} exp(X_i\beta_j)} \tag{1}$$

In our model, j represents each of the four outcomes and i indixes the unit of analysis, being a dyadic episode of intrastate armed conflict. FOllowing Sullivan and Karreth, we omit the most common conflict outcome, low intensity conflict, as the baseline category and calculate estimates for the remaining outcomes government victory, negotiated settlement and rebel victory.

Table 1 shows the results for five different logit models.

```
## Loading required package: lattice
## Loading required package: MASS
##
## Attaching package: 'memisc'
##
## The following objects are masked from 'package:stats':
##
##     contr.sum, contr.treatment, contrasts
##
## The following objects are masked from 'package:base':
```

```
##
##     as.array, trimws
##
##
## Please cite as:
##
##  Hlavac, Marek (2015). stargazer: Well-Formatted Regression and Summary Statistics Tables.
##   R package version 5.2. http://CRAN.R-project.org/package=stargazer

## # weights:  12 (6 variable)
## initial  value 220.420803
## iter  10 value 203.971403
## final  value 203.971340
## converged

## # weights:  16 (9 variable)
## initial  value 220.420803
## iter  10 value 203.971440
## final  value 203.971340
## converged

## # weights:  28 (18 variable)
## initial  value 220.420803
## iter  10 value 191.083694
## iter  20 value 189.848527
## iter  30 value 189.844984
## final  value 189.844981
## converged

## # weights:  32 (21 variable)
## initial  value 220.420803
## iter  10 value 188.901912
## iter  20 value 187.552227
## iter  30 value 187.545294
## final  value 187.545282
## converged

## # weights:  48 (33 variable)
## initial  value 198.240094
## iter  10 value 150.794800
## iter  20 value 147.126641
## iter  30 value 146.763415
## iter  40 value 146.732049
## iter  50 value 146.731788
## iter  50 value 146.731787
## iter  50 value 146.731787
## final  value 146.731787
## converged

##
## % Table created by stargazer v.5.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu
## % Date and time: Fri, Nov 13, 2015 - 18:45:09
```

```
## \begin{table}[!htbp] \centering
##   \caption{}
##   \label{}
## \begin{tabular}{@{\extracolsep{5pt}}lccccccccccccccc}
## \\[-1.8ex]\hline
## \hline \\[-1.8ex]
##  & \multicolumn{15}{c}{\textit{Dependent variable:}} \\
## \cline{2-16}
## \\[-1.8ex] & 1 & 2 & 3 & 1 & 2 & 3 & 1 & 2 & 3 & 1 & 2 & 3 & 1 & 2 & 3 \\
## \\[-1.8ex] & (1) & (2) & (3) & (4) & (5) & (6) & (7) & (8) & (9) & (10) & (11) & (12) & (13) & (14) & (15)\\
## \hline \\[-1.8ex]
## rebel.support\_d & 0.24 & $-$0.60 & $-$0.67 & 0.12 & $-$0.30 & $-$0.34 & 0.11 & $-$0.37 & $-$0.52 & 0.09 & $
##  & (0.83) & (0.54) & (0.59) & (0.42) & (0.27) & (0.30) & (0.43) & (0.28) & (0.32) & (0.43) & (0.28) & (0.32)
##   & & & & & & & & & & & & & & & \\
## gov.support\_d &  &  &  & 0.12 & $-$0.30 & $-$0.34 & 0.11 & $-$0.37 & $-$0.52 & 0.09 & $-$0.40 & $-$0.51 & $-
##  &  &  &  & (0.42) & (0.27) & (0.30) & (0.43) & (0.28) & (0.32) & (0.43) & (0.28) & (0.32) & (0.50) & (0.35) &
##   & & & & & & & & & & & & & & & \\
## rtypesup\_cat2 &  &  &  &  &  &  & $-$0.54 & $-$0.98 & $-$1.44$^{**}$ & $-$0.33 & $-$0.77 & $-$1.52$^{**}$ &
##  &  &  &  &  &  & (0.71) & (0.61) & (0.63) & (0.75) & (0.63) & (0.64) & (0.89) & (0.75) & (0.71) \\
##   & & & & & & & & & & & & & & & \\
## rtypesup\_cat3 &  &  &  &  &  &  & $-$17.33$^{***}$ & $-$1.27$^{*}$ & $-$3.28$^{***}$ & $-$16.42$^{***}$ & $
##  &  &  &  &  &  & (0.0000) & (0.71) & (1.17) & (0.0000) & (0.75) & (1.19) & (0.0000) & (0.96) & (1.27) \\
##   & & & & & & & & & & & & & & & \\
## rtypesup\_catendorsement; alleged military &  &  &  &  &  &  & $-$1.94$^{***}$ & $-$3.98$^{***}$ & 14.28$^{
##  &  &  &  &  &  & (0.0000) & (0.00) & (0.0000) & (0.0000) & (0.00) & (0.0000) & (0.0000) & (0.0000) & (0.00
##   & & & & & & & & & & & & & & & \\
## gtypesup\_cat &  &  &  &  &  &  &  &  & $-$0.51 & $-$0.52 & 0.32 & $-$0.49 & $-$0.54 & 0.10 \\
##   &  &  &  &  &  &  &  &  & (0.49) & (0.42) & (0.42) & (0.57) & (0.48) & (0.47) \\
##   & & & & & & & & & & & & & & & \\
##  fightcaphigh &  &  &  &  &  &  &  &  &  &  &  & 1.46$^{*}$ & 1.14 & $-$0.06 \\
##   &  &  &  &  &  &  &  &  &  &  &  & (0.88) & (0.79) & (0.98) \\
##   & & & & & & & & & & & & & & & \\
##  lngdp &  &  &  &  &  &  &  &  &  &  &  & $-$1.22$^{***}$ & $-$0.27 & $-$0.08 \\
##   &  &  &  &  &  &  &  &  &  &  &  & (0.44) & (0.27) & (0.28) \\
##   & & & & & & & & & & & & & & & \\
##  lnyears &  &  &  &  &  &  &  &  &  &  &  & 0.94$^{**}$ & 0.53$^{*}$ & 0.06 \\
##   &  &  &  &  &  &  &  &  &  &  &  & (0.39) & (0.27) & (0.28) \\
##   & & & & & & & & & & & & & & & \\
##  postCW &  &  &  &  &  &  &  &  &  &  &  & 0.81 & 2.00$^{***}$ & $-$0.56 \\
##   &  &  &  &  &  &  &  &  &  &  &  & (0.67) & (0.61) & (0.60) \\
##   & & & & & & & & & & & & & & & \\
## Constant & $-$1.39$^{*}$ & $-$0.0000 & $-$0.29 & $-$1.39$^{*}$ & $-$0.0000 & $-$0.29 & $-$0.63 & 1.03 & 1.
##  & (0.79) & (0.50) & (0.54) & (0.79) & (0.50) & (0.54) & (1.07) & (0.78) & (0.83) & (1.30) & (1.02) & (1.12)
##   & & & & & & & & & & & & & & & \\
## \hline \\[-1.8ex]
## Akaike Inf. Crit. & 419.94 & 419.94 & 419.94 & 419.94 & 419.94 & 419.94 & 409.69 & 409.69 & 409.69 & 411.09 &
## \hline
## \hline \\[-1.8ex]
## \textit{Note:}  & \multicolumn{15}{r}{$^{*}$p$<$0.1; $^{**}$p$<$0.05; $^{***}$p$<$0.01} \\
## \end{tabular}
## \end{table}
```

Outlook

text

Bibliography

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